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Annex149C Comments

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Scope

- Annex Change Max PCB length from 4.5" to 76.2 mm (3”) more representative of MAX implementations and SI units .
- In Figure 149C–1 delete 4.5" two places.
- In equation (149C–1)

$$IL_{PCB(76.2mm)} = [0.0071\sqrt{f(GHz)} + 0.0045f(GHz)\ dB/mm]\ x\ 76.2\ mm\ (dB)$$

- In equation (149C–2)

$$IL_{PCB(25.4mm)} = [0.0071\sqrt{f(GHz)} + 0.0045f(GHz)\ dB/mm]x\ 25.4mm\ \ (dB)$$

- In equation (149C–4)

Change $PCBIL_{\frac{db/}{4.5"}}$ to $IL_{PCB(76.2mm)}$

- In 149C.3 Channel insertion loss

Change: The maximum-loss channel topology insertion loss is determined using Equation (149C–4).

To: The channel topology with the 76.2 mm PCB insertion loss is determined using Equation (149C–4).

Scope

- Change Table 149C–1 values as follows.

Table 149C–1—Channel insertion loss for each PHY type

PHY	MBd	Bandwidth (MHz)	$PCBIL_{dB/4.5in}$ [a]	$IL_{LinkSegment}$ [b]	IL_{MDI} [c]	$IL_{channelMax}$ [d]
2.5GBASE-T1	1406.25	703.125	1.0393	14.3982	0.0839	16.6444
5GBASE-T1	2812.5	1406.25	1.6807	20.56	0.1186	24.1585
10GBASE-T1	5625	2812.5	2.7987	29.8688	0.1677	35.8016

[a]See Equation (149C–1)
[b]See Equation (149C–5)
[c]See Equation (149C–4)
[d]See Equation (149C–3)

PHY	MBd	Bandwidth (MHz)	PCBILdb(76.2 mm)	IL Link Segment	IL MDI	IL Channel
2.5GBASE-T1	1406.25	703.125	0.6948	14.398	0.084	15.955
5GBASE-T1	2812.5	1406.25	1.1238	20.560	0.119	23.045
10GBASE-T1	5625	2812.5	1.8717	29.869	0.168	33.948